

AMENDMENTS

Independent Claim 29 has been amended to recite that the claimed attractant includes a vitamin/cofactor component. Support for this amendment can be found in the originally pending claims and in the specification, for example at page 11, Table 1A. Claim 30 has been amended to depend from Claim 29. Independent Claims 32, 34, 37, 38 and 40 have been amended to recite that the claimed composition includes an assimilable carbon skeleton energy component, a macronutrient component, a micronutrient component, a vitamin/cofactor component and a complexing agent. Support for these amendments can be found in the originally pending claims and in the specification, for example at page 11, Table 1A. Claim 32 has also been amended to correct a minor typographical error. Claim 36 has been amended to depend from Claim 34. Claims 31, 32, 34, 35, 36, 38, 39, 40, and 41 have been amended for consistency.

The specification has been amended to recite the priority history. Per the Examiner's suggestion, the graph on page 28 has been deleted. The specification, on page 28, has been amended to delete reference to the graph.

OBJECTIONS

The specification has been objected to for failing to cite the priority history at the beginning of the specification. The first paragraph of the specification has been amended to include the priority history. Accordingly, the Applicant respectfully requests that this rejection be withdrawn.

The Examiner has objected to the figure on page 28. In response thereto, the Applicants have deleted the drawing from page 28. Accordingly, the Examiner is respectfully requested to reconsider and withdraw this objection.

REJECTION UNDER 35 U.S.C. § 112, SECOND PARAGRAPH

The Examiner has rejected Claims 30-41 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as the invention. In response thereto, the Applicant has amended the claims as described below.

Claim 30 has been amended to depend from Claim 29 and to cancel reference to previously cancelled Claim 1.

Claims 32, 34, 37, 38 and 40, and the claims that depend therefrom, have been amended to delete reference to previously cancelled Claim 1 and to recite that the claimed composition includes an assimilable carbon skeleton energy component, a macronutrient component, a micronutrient component, a vitamin/cofactor component and a complexing agent.

Claim 36 has been amended to depend from Claim 34, where such amendment provides antecedent basis for “the seeds”.

In view of the above-described amendments to the claims, the Applicants respectfully request that this rejection of Claims 30-41 under 35 U.S.C. 112, second paragraph be withdrawn.

REJECTION UNDER 35 U.S.C. §102(b)

The Examiner has rejected Claims 29, 30, 34, 37 and 40 under 35 U.S.C. §102(b) as being anticipated by Roth (4,065,287). The Applicant respectfully submits that the above cited reference does not anticipate Claims 29, 30, 34, 37 and 40.

Under current case law, a reference does not anticipate a claim unless “all of the elements and limitations of the claim are found within [that]...reference....There must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of invention.” Scripps Clinic v. Genentech, Inc., 18 USPQ2d 1671, 1672 (Fed. Cir. 1992).

As amended, the claims of the present application recite a composition that includes an assimilable carbon skeleton energy component, a macronutrient component, a micronutrient component, a vitamin/cofactor component and a complexing agent. Therefore, in order for the subject claims to be anticipated by Roth, Roth must disclose each and every claimed limitation, namely a composition having all of the above-described components. The Applicant respectfully submits that not all of the claimed limitations are found in Roth.

Roth discloses incorporating an active ingredient such as an agricultural chemical into a carrier substance that is made of methanol treated activated sludge or MAS (see for example column 2, line 48 to column 3, line 26). However, nowhere in the disclosure of Roth is it taught that the composition of Roth includes a vitamin/cofactor component. Therefore, Roth does not anticipate the subject claims because Roth fails to teach each and every claimed limitation, namely the inclusion of a vitamin/cofactor component. Accordingly, the Applicants respectfully request that this rejection be withdrawn.

OBVIOUSNESS UNDER 35 U.S.C. § 103

Claim 31 has been rejected under 35 U.S.C. §103 over Roth (4,065,287) in view of Van Steenwyk (4,605,560) for the asserted reason that the combination of the references renders the present invention obvious. In view of the amendments of the above-mentioned claims, the Applicant asserts that Claim 31 is not rendered obvious under 35 U.S.C. §103 over Roth in view of Van Steenwyk.

The M.P.E.P. teaches that a proper *prima facie* case of obviousness requires that a combined teaching of two or more references **must teach or suggest all the claim limitations**. The M.P.E.P. states in relevant part:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) **must teach or suggest all the claim limitations**. M.P.E.P. § 2142.

Claim 31 depends from Claim 29. As described above, Claim 29 as amended includes an attractant having a vitamin/cofactor component, which vitamin/cofactor component is not taught in Roth. Furthermore, there is no motivation for one of skill in the art to modify the invention of Roth to include a vitamin/cofactor component as Roth, nor any other art of record, teaches or suggests adding a vitamin/cofactor component to compositions of methanol treated activated sludge and agricultural chemical, nor does Roth or any art of record teach that such a vitamin/cofactor is needed. As Van Steenwyk is cited solely for the use of a composition to disrupt ovipositioning of the navel orange worm,

Van Steenwyk fails to overcome the deficiencies of Roth. As the cited references either alone or in combination fail to teach or suggest all of the claimed limitations, a proper *prima facie* case of obvious can not be made. Accordingly, the Applicant respectfully requests that this rejection be withdrawn.

Claims 32 and 33 are rejected under 35 U.S.C. §103(a) as being unpatentable over Army et al. (4,161,084) in view of Roth (4,065,287). Claim 32 as amended recites a method of applying a composition that includes a vitamin/cofactor component to a plant to control frost damage thereof. Claim 33 depends from Claim 32. Army et al. is cited solely for disclosing a method of applying to the surface of plants non-ice nucleating microorganisms that are antagonistic to ice-nucleating microorganisms and does not teach or suggest a composition that includes a vitamin/cofactor component. As described above, Roth does not teach or suggest such a component. As the cited references either alone or in combination fail to teach or suggest all of the claimed limitations, a proper *prima facie* case of obvious can not be made. Accordingly, the Applicant respectfully requests that this rejection be withdrawn.

Claim 35 is rejected under 35 U.S.C. §103(a) as being unpatentable over Roth (4,065,287). Claim 35 depends from Claim 34 which, as amended, recites a composition that includes a vitamin/cofactor component. As described above, Roth fails to teach or even suggest a composition that includes a vitamin/cofactor component and thus a proper *prima facie* case of obvious can not be made. Accordingly, the Applicant respectfully requests that this rejection be withdrawn.

Claims 36 and 41 are rejected under 35 U.S.C. §103(a) as being unpatentable over Roth (4,065,287) in view of Novitski et al. (5,264,210). Claim 36 depends from Claim 34 which, as described above, recites a composition that includes a vitamin/cofactor component. Roth fails to teach or even suggest a composition that includes a vitamin/cofactor component. Novitski et al. is cited solely for disclosing adding *P. cepacia* to seed to promote growth and does not teach or suggest a composition that includes a vitamin/cofactor component and thus fails to overcome the deficiencies of Roth. Claim 41 depends from Claim 40 which, as amended, recites a method of treating soil to promote plant growth that includes mixing a composition having a vitamin/cofactor with the soil. As described, the combination of Roth in view of Novitski et al. fails to teach or suggest such a composition. As the cited references either alone or in combination fail to teach or suggest all of the claimed limitations, a proper

prima facie case of obvious can not be made. Accordingly, the Applicant respectfully requests that this rejection be withdrawn.

Claims 38 and 39 are rejected under 35 U.S.C. §103(a) as being unpatentable over Novitski et al. (5,264,210) in view of Roth (4,065,287). Claim 38 as amended recites a composition that includes a vitamin/cofactor component. Claim 39 depends from Claim 38. As described above, the combination of Roth and Novitski et al. fails to teach or suggest a composition that includes a vitamin/cofactor component. As the cited references fail to teach or suggest all of the claimed limitations, a proper *prima facie* case of obvious can not be made. Accordingly, the Applicant respectfully requests that this rejection be withdrawn.

CONCLUSION

In view of the remarks, this application is considered to be in good and proper form for allowance and the Examiner is respectfully requested to pass this application to issue.

The Commissioner is hereby authorized to charge any fees under 37 C.F.R. §§1.16 and 1.17 which may be required by this paper, or to credit any overpayment, to Deposit Account No. 50-0815, reference no. YAMA001CON9.

Respectfully submitted,
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Date: 8.15.02

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION

Please replace the first paragraph on page 1 with the following rewritten paragraph.

--This application is a continuation of Application Serial No. 09/615,930, filed on July 13, 2000, now U.S. Patent No. 6,318,023, which is a continuation of Application Serial No. 09/139,531, filed on August 25, 1998, now U.S. Patent No. 6,309,440, which is a continuation of Application Serial No. 08/795,192, filed February 4, 1997, now U.S. Patent No. 5,797,976, which is a continuation --in-part of Application Serial No. 07/242,951, filed September 9, 1988, now abandoned and of Application Serial No. 07/354,155, filed May 19, 1989, now abandoned.--

Please delete the figure on page 28.

Please replace the paragraph on page 28, beginning at line 5, with the following paragraph:

The specific goals of a program will dictate frequency of applications- e.g. if one is trying to overcome alternate bearing in pistachios it is critical that at least 3 applications are applied between early April and mid-May when the shoots bearing next year's fruit buds will be determined; as a general rule, prelog and log phase growth periods are most demanding of energy and nutrients, followed next by the linear and senescence phases (~~see graph below~~).

IN THE CLAIMS

Please amend the claims as follows:

29. (Amended) A method of disrupting the egg laying activity of insects which are attracted by olfactory stimuli to the crop of a plant and which lay their eggs in such crop and cause damage to the crop when the eggs are hatched, said method comprising applying to the foliage of such plant an attractant comprising an aqueous solution of an assimilable carbon skeleton energy component, a macronutrient component, a micronutrient component, a vitamin/cofactor component and a complexing agent.

30. (Amended) The method of Claim 29 wherein ~~in which~~ the attractant is an emulsion of a crop oil ~~in the composition of Claim 1.~~

31. (Amended) The method of Claim 29 wherein in which the insect is the naval orange worm.

32. (Amended) A method of controlling ~~In the control of~~ frost damage to plants or their crops wherein micro-organisms are present which function as an ice nucleating factor and ~~thereby~~ thereby exacerbate frost damage, said method comprising the improvement comprises applying to the surface of the plants infested with ice-nucleating micro-organisms a composition as in Claim 1 which also includes comprising an assimilable carbon skeleton energy component, a macronutrient component, a micronutrient component, a vitamin/cofactor component, a complexing agent and microorganisms which are antagonistic to said ice-nucleating micro-organisms to the surface of the plants infested with ice-nucleating micro-organisms.

34. (Amended) A method of treating seeds to promote growth of plants to be grown from the seeds, said method comprising which comprises coating the seeds with ~~the a~~ a composition of ~~Claim 1~~ comprising an assimilable carbon skeleton energy component, a macronutrient component, a micronutrient component, a vitamin/cofactor component and a complexing agent.

35. (Amended) The method of Claim 34 wherein in which the seeds are treated, prior to such coating, to remove pathogens from their surfaces.

36. (Amended) The method of Claim ~~31~~ 34 wherein in which the coating includes micro-organisms which act on the soil in which the seeds are to be planted to promote germination of the seeds and growth of resulting plants.

37. (Amended) Seeds coated with a composition of Claim 1 comprising an assimilable carbon skeleton energy component, a macronutrient component, a micronutrient component, a vitamin/cofactor component and a complexing agent.

38. (Amended) A method of treating roots of plants, said method comprising which comprise applying ~~to the roots the a~~ a composition of ~~Claim 1~~ comprising an assimilable carbon skeleton energy component, a macronutrient component, a micronutrient component, a vitamin/cofactor component and a complexing agent to the roots.

39. (Amended) The method of Claim 38 ~~wherein in which~~ said composition also contains micro-organisms which act on the soil in which the roots are planted to promote growth of the plants.

40. (Amended) A method of treating soil to promote the growth of plants therein, said method comprising ~~which comprises~~ mixing with the soil the ~~a composition of Claim 1~~ comprising an assimilable carbon skeleton energy component, a macronutrient component, a micronutrient component, a vitamin/cofactor component and a complexing agent.

41. (Amended) The method of Claim 40 ~~wherein in which~~ said composition also contains micro-organisms which have a beneficial effect upon the soil or which act as antagonists to pathogens in the soil.